

CLAIMS

What is claimed is:

1. A lightweight vehicle body part including an oblong profiled beam made of sheet steel, and a light metal, wherein the beam has an open cross-section with a base and two legs extending from said base; and the beam has at least one free area which is locally provided with a cast or sintered reinforcement structure made of the light metal.
2. The lightweight part according to Claim 1, wherein the reinforcement structure includes at least one local thickening which is positioned at a strongly loaded point of the sheet steel.
3. The lightweight part according to claim 1, wherein the reinforcement structure includes multiple ribs which are positioned essentially perpendicularly to the sheet steel.
4. The lightweight part according to Claim 3, wherein the ribs are connected to one another in crosses.
5. The lightweight part according to claim 1, wherein the reinforcement structure is cast onto the sheet steel or is cast into the sheet steel on only one side.
6. The lightweight part according to claim 1, wherein the reinforcement structure is connected to the sheet steel in a form-fitting way.
7. The lightweight part according to Claim 1, wherein

both the base and the two legs of the beam are connected to the reinforcement structure.

8. The lightweight part according to Claim 6 or 7, wherein
flanges, onto which the reinforcement structure is cast, extend from the two legs.
9. The lightweight part according to Claim 8, wherein the reinforcement structure is attached to the two flanges with the aid of attachment means.
10. The lightweight part according to Claim 8, wherein the reinforcement structure is attached to the base of the beam with the aid of attachment means.
11. The lightweight part according to claim 1, wherein the reinforcement structure is held on the sheet steel through protrusions and/or depressions, particularly beads, implemented in the sheet steel.
12. The lightweight part according to claim 7, wherein the beam has a T-shaped cross section at at least one end of said beam.
13. The lightweight part according to claim 1, wherein the sheet steel has a thickness of less than 2 mm in at least some regions.
14. The lightweight part according to claim 1, wherein the sheet steel has a thickness of less than 1 mm in at least some regions.